

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1 - 25. (canceled)

26. (original) A method of recording information to an optical recording medium comprising a phase change material, said method comprising the steps of:

applying energy having a spatial profile to said phase change material, said spatial profile defining a region of spatial overlap of said energy with said phase change material, said energy providing a temperature profile within said region of spatial overlap, said temperature profile defining a spatial distribution of temperatures, said spatial distribution including temperatures sufficient to permit formation of an amorphous phase in said region of spatial overlap;

forming a mark coinciding with the portions of said spatial distribution having a temperature sufficient to form an amorphous phase, said mark comprising an amorphous phase, said amorphous phase forming upon cooling of said region of spatial overlap, said cooling releasing energy in excess of the energy required to form said amorphous phase;

dissipating said excess energy to portions of said phase change material outside of the spatial region coinciding with said mark, said dissipating occurring at a rate sufficient to prevent formation of an amorphous phase in said portions outside of said mark.

27. (original) The method of claim 26, wherein said energy is applied in the form of an energy pulse.

28. (original) The method of claim 27, wherein said energy pulse has a pulse duration of less than 14 nanoseconds.

29. (original) The method of claim 27, wherein said energy pulse has a pulse duration of less than 10 nanoseconds.

30. (original) The method of claim 27, wherein said energy pulse has a pulse duration of less than 7 nanoseconds.
31. (original) The method of claim 26, wherein said energy is applied in the form of a plurality of energy pulses.
32. (original) The method of claim 26, wherein said energy is applied with a laser.
33. (original) The method of claim 26, wherein said spatial profile is uniform.
34. (original) The method of claim 26, wherein said spatial profile is a Gaussian profile.
35. (original) The method of claim 26, wherein said phase change material comprises a chalcogenide.
36. (original) The method of claim 26, wherein said phase change material comprises an element selected from the group consisting of Ge, Sb, Se, In, Ag and Te.
37. (original) The method of claim 26, wherein said region of spatial overlap is substantially cylindrical.
38. (original) The method of claim 26, wherein said temperature profile is uniform.
39. (original) The method of claim 26, wherein said mark coincides with said region of spatial overlap.
40. (original) The method of claim 26, wherein said mark provides for more than two recording levels.
41. (original) The method of claim 26, wherein said cooling comprises capacitive cooling.
42. (original) The method of claim 26, wherein said dissipating step comprises capacitive cooling.